## LAB02: DDL Commands

Data manipulation language (DML) statements access and manipulate data in existing schema objects. These are used for managing data within schema objects.

SELECT - retrieve data from the database.

Syntax:

SELECT column01,column02,… FROM table-name

WHERE condition;

INSERT - insert data into a table.

Syntax:

INSERT into table-name(column01,column2,… ) values(data1,data2,..);

UPDATE - updates existing data within a table.

Syntax:

UPDATE table-name SET Column-name=value WHERE condition;

DELETE - deletes all records from a table, the space for the records remain.

Syntax:

DELETE FROM table-name WHERE condition

C:\xampp\mysql\bin>mysql -u root -p -h 127.0.0.1

Enter password:

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

0 rows in set (0.001 sec)

MariaDB [(none)]> create database music\_playlist;

Query OK, 1 row affected (0.007 sec)

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| music\_playlist |

+--------------------+

1 rows in set (0.001 sec)

MariaDB [(none)]> use music\_playlist;

Database changed

MariaDB [music\_playlist]> show tables;

Empty set (0.001 sec)

MariaDB [music\_playlist]> create table music(id int(11) auto\_increment not null primary key,name varchar(25) not null,artist varchar(25) not null,album varchar(25) not null,genre varchar(25) not null,year int(11) not null);

Query OK, 0 rows affected (0.021 sec)

MariaDB [music\_playlist]> show tables;

+--------------------------+

| Tables\_in\_music\_playlist |

+--------------------------+

| music |

+--------------------------+

1 row in set (0.000 sec)

MariaDB [music\_playlist]> describe music;

+--------+-------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+--------+-------------+------+-----+---------+----------------+

| id | int(11) | NO | PRI | NULL | auto\_increment |

| name | varchar(25) | NO | | NULL | |

| artist | varchar(25) | NO | | NULL | |

| album | varchar(25) | NO | | NULL | |

| genre | varchar(25) | NO | | NULL | |

| year | int(11) | NO | | NULL | |

+--------+-------------+------+-----+---------+----------------+

6 rows in set (0.016 sec)

MariaDB [music\_playlist]> select \* from music;

Empty set (0.000 sec)

MariaDB [music\_playlist]> insert into music(name,artist,album,genre,year) values('Crooked Smile','J Cole','Born Sinner','HipHop','2012');

Query OK, 1 row affected (0.003 sec)

MariaDB [music\_playlist]> select \* from music;

+----+---------------+--------+-------------+--------+------+

| id | name | artist | album | genre | year |

+----+---------------+--------+-------------+--------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

+----+---------------+--------+-------------+--------+------+

1 row in set (0.000 sec)

MariaDB [music\_playlist]> insert into music(name,artist,album,genre,year)

-> values('Power Trip','J Cole','Born Sinner','HipHop','2012');

Query OK, 1 row affected (0.003 sec)

MariaDB [music\_playlist]> select \* from music;

+----+---------------+--------+-------------+--------+------+

| id | name | artist | album | genre | year |

+----+---------------+--------+-------------+--------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

| 2 | Power Trip | J Cole | Born Sinner | HipHop | 2012 |

+----+---------------+--------+-------------+--------+------+

2 rows in set (0.000 sec)

MariaDB [music\_playlist]> insert into music(name,artist,album,genre,year)

-> values('already','Kemba','Negus','HipHop','2016')

-> ;

Query OK, 1 row affected (0.002 sec)

MariaDB [music\_playlist]> select \* from music;

+----+---------------+--------+-------------+--------+------+

| id | name | artist | album | genre | year |

+----+---------------+--------+-------------+--------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

| 2 | Power Trip | J Cole | Born Sinner | HipHop | 2012 |

| 3 | already | Kemba | Negus | HipHop | 2016 |

+----+---------------+--------+-------------+--------+------+

3 rows in set (0.000 sec)

MariaDB [music\_playlist]> update music

-> set name='Already'

-> where id=3;

Query OK, 1 row affected (0.002 sec)

Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [music\_playlist]> select \* from music;

+----+---------------+--------+-------------+--------+------+

| id | name | artist | album | genre | year |

+----+---------------+--------+-------------+--------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

| 2 | Power Trip | J Cole | Born Sinner | HipHop | 2012 |

| 3 | Already | Kemba | Negus | HipHop | 2016 |

+----+---------------+--------+-------------+--------+------+

3 rows in set (0.000 sec)

Microsoft Windows [Version 10.0.19041.630]

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C:\xampp\mysql\bin>mysql -u root -p -h 127.0.0.1

Enter password:

Welcome to the MariaDB monitor. Commands end with ; or \g.

Your MariaDB connection id is 8

Server version: 10.4.16-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| book\_mngmt\_sys |

| collmgmtsys |

| information\_schema |

| music\_playlist |

| mysql |

| performance\_schema |

| phpmyadmin |

| test |

+--------------------+

8 rows in set (0.006 sec)

MariaDB [(none)]> use music\_playlist;

Database changed

MariaDB [music\_playlist]> show tables;

+--------------------------+

| Tables\_in\_music\_playlist |

+--------------------------+

| music |

+--------------------------+

1 row in set (0.002 sec)

MariaDB [music\_playlist]> select \* from music;

+----+---------------+--------+-------------+--------+------+

| id | name | artist | album | genre | year |

+----+---------------+--------+-------------+--------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

| 2 | Power Trip | J Cole | Born Sinner | HipHop | 2012 |

| 3 | Already | Kemba | Negus | HipHop | 2016 |

+----+---------------+--------+-------------+--------+------+

3 rows in set (0.018 sec)

MariaDB [music\_playlist]> insert into music(name,artist,album,genre,year)

-> values('Mirrors','Justin Timberlake','2020 Experience','Pop','2013');

Query OK, 1 row affected (0.006 sec)

MariaDB [music\_playlist]> insert into music(name,artist,album,genre,year)

-> values('HUMBLE','Kendrick Lamar','DAMN','HipHop','2017');

Query OK, 1 row affected (0.004 sec)

MariaDB [music\_playlist]> select \* from music;

+----+---------------+-------------------+-----------------+--------+------+

| id | name | artist | album | genre | year |

+----+---------------+-------------------+-----------------+--------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

| 2 | Power Trip | J Cole | Born Sinner | HipHop | 2012 |

| 3 | Already | Kemba | Negus | HipHop | 2016 |

| 4 | Mirrors | Justin Timberlake | 2020 Experience | Pop | 2013 |

| 5 | HUMBLE | Kendrick Lamar | DAMN | HipHop | 2017 |

+----+---------------+-------------------+-----------------+--------+------+

5 rows in set (0.000 sec)

MariaDB [music\_playlist]> select name from music;

+---------------+

| name |

+---------------+

| Crooked Smile |

| Power Trip |

| Already |

| Mirrors |

| HUMBLE |

+---------------+

5 rows in set (0.000 sec)

MariaDB [music\_playlist]> select artist from music;

+-------------------+

| artist |

+-------------------+

| J Cole |

| J Cole |

| Kemba |

| Justin Timberlake |

| Kendrick Lamar |

+-------------------+

5 rows in set (0.000 sec)

MariaDB [music\_playlist]> select artist from music

-> where album='HipHop';

Empty set (0.004 sec)

MariaDB [music\_playlist]> select name from music

-> where genre='HipHop';

+---------------+

| name |

+---------------+

| Crooked Smile |

| Power Trip |

| Already |

| HUMBLE |

+---------------+

4 rows in set (0.000 sec)

MariaDB [music\_playlist]> delete from music

-> where name='Power Trip';

Query OK, 1 row affected (0.004 sec)

MariaDB [music\_playlist]> select \* from music;

+----+---------------+-------------------+-----------------+--------+------+

| id | name | artist | album | genre | year |

+----+---------------+-------------------+-----------------+--------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

| 3 | Already | Kemba | Negus | HipHop | 2016 |

| 4 | Mirrors | Justin Timberlake | 2020 Experience | Pop | 2013 |

| 5 | HUMBLE | Kendrick Lamar | DAMN | HipHop | 2017 |

+----+---------------+-------------------+-----------------+--------+------+

4 rows in set (0.000 sec)

MariaDB [music\_playlist]> insert into music(name,artist,album,genre,year)

-> values('Sweet Child Of Mine','Guns N Roses','Appetite for Destruction','Classic Rock','1987');

Query OK, 1 row affected (0.003 sec)

MariaDB [music\_playlist]> select \* from music;

+----+---------------------+-------------------+--------------------------+--------------+------+

| id | name | artist | album | genre | year |

+----+---------------------+-------------------+--------------------------+--------------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

| 3 | Already | Kemba | Negus | HipHop | 2016 |

| 4 | Mirrors | Justin Timberlake | 2020 Experience | Pop | 2013 |

| 5 | HUMBLE | Kendrick Lamar | DAMN | HipHop | 2017 |

| 6 | Sweet Child Of Mine | Guns N Roses | Appetite for Destruction | Classic Rock | 1987 |

+----+---------------------+-------------------+--------------------------+--------------+------+

5 rows in set (0.000 sec)

MariaDB [music\_playlist]> update music

-> set artist='Guns & Roses'

-> where id=6;

Query OK, 1 row affected (0.005 sec)

Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [music\_playlist]> select \* from music;

+----+---------------------+-------------------+--------------------------+--------------+------+

| id | name | artist | album | genre | year |

+----+---------------------+-------------------+--------------------------+--------------+------+

| 1 | Crooked Smile | J Cole | Born Sinner | HipHop | 2012 |

| 3 | Already | Kemba | Negus | HipHop | 2016 |

| 4 | Mirrors | Justin Timberlake | 2020 Experience | Pop | 2013 |

| 5 | HUMBLE | Kendrick Lamar | DAMN | HipHop | 2017 |

| 6 | Sweet Child Of Mine | Guns & Roses | Appetite for Destruction | Classic Rock | 1987 |

+----+---------------------+-------------------+--------------------------+--------------+------+

5 rows in set (0.000 sec)

MariaDB [music\_playlist]> update music

-> set id='2';

ERROR 1062 (23000): Duplicate entry '2' for key 'PRIMARY'

MariaDB [music\_playlist]> delete from music;

Query OK, 5 rows affected (0.009 sec)

MariaDB [music\_playlist]> show tables;

+--------------------------+

| Tables\_in\_music\_playlist |

+--------------------------+

| music |

+--------------------------+

1 row in set (0.001 sec)

MariaDB [music\_playlist]> select \* from music;

Empty set (0.000 sec)

MariaDB [music\_playlist]>exit;